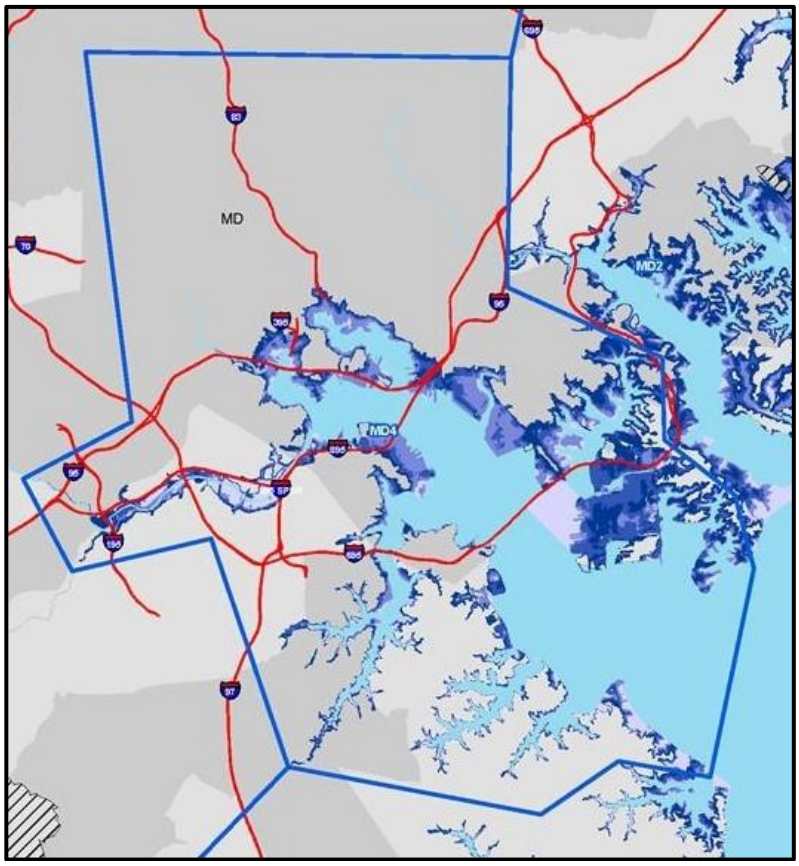
Baltimore Coastal Storm Risk Management Feasibility Study

Appendix H: Agency & Public Involvement Coordination



City of Baltimore, Anne Arundel and Baltimore Counties
July 2022

US Army Corps of Engineers
Baltimore District

MARYLAND DEPARTMENT OF TRANSPORTATION

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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201-2930

September 9, 2019

Mr. Cosmo Servidio
Regional Administrator
U.S. Environmental Protection Agency – Region 3
1650 Arch Street
Mail Code: 3RA00
Philadelphia, PA 19103-2029

Dear Mr. Servidio,

The U. S. Army Corps of Engineers, Baltimore District (USACE), has begun a feasibility study to investigate coastal storm risk problems in the Baltimore metropolitan area and develop solutions to reduce future risk (see enclosed study area map). The non-federal sponsor is the Maryland Department of Transportation (MDOT). As part of the feasibility study, we are preparing environmental documents pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. As the lead federal agency under NEPA, we are inviting your participation as a cooperating agency in the development of the environmental documents (either an Environmental Impact Statement or an Environmental Assessment). The NEPA documents will evaluate environmental impacts from project alternatives. We are currently formulating alternatives, and the draft integrated Feasibility Report and NEPA document is tentatively scheduled to be released in the fall of 2020.

The study is built upon the USACE North Atlantic Coast Comprehensive Study (NACCS), which identified nine high-risk areas that warrant further investigation of coastal storm risk management solutions, including the Baltimore area. More information on the NACCS can found at: https://www.nad.usace.army.mil/CompStudy/.

The study will seek to identify alternative plans to reduce coastal storm risks in ways that support the long-term resilience and sustainability of human communities and the coastal ecosystem. More information on the Baltimore Metropolitan Coastal Storm Risk Management Study can be found at: https://www.nab.usace.army.mil/missions/civil-works/baltimore-coastal-study/.

Based on your agency's jurisdiction by law and/or special expertise, specifically under the Clean Water Act and NEPA, your participation as a cooperating agency may enhance the interdisciplinary capability of the USACE and contribute to a more thorough evaluation of the proposed plan.

In accordance with the Council on Environmental Quality final implementing regulations for NEPA (40 C.F.R. § 1501.6 and § 1508.5), your agency's specific responsibilities as a cooperating agency would include:

- Participation in agency coordination meetings, conference calls, and site visits;
- Comment and feedback on the NEPA document schedule, overall scope of the document, significant issues to be evaluated, environmental impacts, study and assessment methodologies, range of alternatives, and proposed compensatory mitigation, if applicable;
- Identification of issues related to your agency's jurisdiction by law and special expertise;
- Participation, as appropriate, at public meetings and hearings; and
- Timely review of the draft and final NEPA document prior to public review to communicate any concerns of your agency.

Please provide your written statement of interest to this invitation and an agency point of contact within 30 days of this letter. If you elect not to become a cooperating agency, you must decline this invitation in writing within 30 days of this letter, indicating that your agency has no jurisdiction or authority with respect to the project, no expertise or information relevant to the project, does not have adequate funds to participate in the project, or does not intend to submit comments on the project. Your response may be transmitted electronically to Ms. Vanessa Campbell, Project Biologist at Vanessa.m.campbell@usace.army.mil. Please be advised that if your agency does not respond within the specified timeframe, your agency will automatically become a cooperating agency.

We look forward to your response to this request and your role as a cooperating agency on this study. If you have questions or would like to discuss the project in more detail or our agencies' respective roles and responsibilities during the preparation of the NEPA document, please contact Ms. Campbell at the email above or by phone at (410) 962-6704.

Sincerely,

Daniel M. Bierly
Chief, Civil Project Development Branch
Planning Division

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

September 26, 2019

Ms. Vanessa Campbell
U.S. Army Corps of Engineers, Baltimore District
Planning Division,10th Floor
2 Hopkins Plaza
Baltimore, Maryland 21201

Re: Cooperating Agency Role for the Baltimore Metropolitan Coastal Storm Risk Management Study

Dear Ms. Campbell:

The U.S. Environmental Protection Agency (EPA) is responding to your letter dated September 9, 2019, in which you requested our participation as a cooperating agency in the development of an Environmental Impact Statement (EIS) or Environmental Assessment (EA) for the Baltimore Metropolitan Coastal Storm Risk Management Study. EPA is pleased to reply that we are committed to playing an active role as a cooperating agency for the subject project.

The Council of Environmental Quality (CEQ) has determined that a cooperating agency has the responsibility to assist the lead agency by participating in the National Environmental Policy Act (NEPA) process at the earliest possible time. This participation includes: engaging in the scoping process, developing information and preparing environmental analyses in areas of special technical expertise, and providing staff support at the lead agency's request to enhance the lead agency's interdisciplinary capabilities. Our role as a cooperating agency in support of the subject EIS or EA as presented in your letter, will include providing technical assistance for:

- General NEPA work such as scoping, development of the range of alternatives, analysis of the alternatives and their environmental impacts, identification of significant issues, and assessment of Environmental Justice, cumulative impacts, and compensatory mitigation as applicable;
- Clean Water Act (CWA) Section 404 and Clean Air Act (CAA) compliance;
- Data, mapping, and assessment methodologies or models that may offer relevant information or analyses;
- Technical support in the field and participation in related meetings.

As you are aware, there are a number of benefits of enhanced cooperating agency participation in the preparation of NEPA analyses, including: disclosing relevant information early in the analytical process; applying available technical expertise and staff support; and establishing a mechanism for

addressing intergovernmental issues. Given reasonable time frames, we would be pleased to review preliminary project documentation, including draft versions of the document.

Please note that CEQ guidance recognizes that status as a cooperating agency should not be construed as expressing agreement with the lead agency regarding the conclusions to be drawn or the selection of the preferred alternative in the NEPA document. In addition, EPA has a number of independent responsibilities related to the proposed project, and we retain our independent obligations and responsibilities pursuant to Section 309 of the Clean Air Act (CAA), Sections 402(d) and 404(b), (c), and (q) of the CWA.

While we plan on being fully engaged as a cooperating agency, resource constraints may require us to limit our in-person attendance at project meetings. We hope that video or telephone conference opportunities are made available for that contingency.

Thank you for the opportunity to be a cooperating agency on this project. We look forward to working with you to ensure that a scientifically sound and sufficient study is developed for this project. If you need additional assistance, the staff contact for this project is Carrie Traver; she can be reached at 215-814-2772.

Sincerely,

Barbara Rudnick
NEPA Program Coordinator
Office of Communities, Tribes, & Environmental Assessment

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201-2930

September 9, 2019

Paul Phifer, PhD
Assistant Regional Director – Ecological Services Northeast Region
Department of the Interior
U.S. Fish and Wildlife Service
Northeast Regional Office
300 Westgate Center Drive
Hadley, MA 01035-9587

Dear Dr. Phifer:

The U. S. Army Corps of Engineers, Baltimore District (USACE), has begun a feasibility study to investigate coastal storm risk problems in the Baltimore metropolitan area and develop solutions to reduce future risk (see enclosed study area map). The non-federal sponsor is the Maryland Department of Transportation (MDOT). As part of the feasibility study, we are preparing environmental documents pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. As the lead federal agency under NEPA, we are inviting your participation as a cooperating agency in the development of the environmental documents (either an Environmental Impact Statement or an Environmental Assessment). The NEPA documents will evaluate environmental impacts from project alternatives. We are currently formulating alternatives, and the draft integrated Feasibility Report and NEPA document is tentatively scheduled to be released in the fall of 2020.

The study is built upon the USACE North Atlantic Coast Comprehensive Study (NACCS), which identified nine high-risk areas that warrant further investigation of coastal storm risk management solutions, including the Baltimore area. More information on the NACCS can found at: https://www.nad.usace.army.mil/CompStudy/.

The study will seek to identify alternative plans to reduce coastal storm risks in ways that support the long-term resilience and sustainability of human communities and the coastal ecosystem. More information on the Baltimore Metropolitan Coastal Storm Risk Management Study can be found at: https://www.nab.usace.army.mil/missions/civil-works/baltimore-coastal-study/.

Based on your agency's jurisdiction by law and/or special expertise, specifically under the Fish and Wildlife Coordination Act and Endangered Species Act, your participation as a cooperating agency will enhance the interdisciplinary capability of the USACE and contribute to a more thorough evaluation of the proposed plan.

In accordance with the Council on Environmental Quality final implementing regulations for NEPA (40 C.F.R. § 1501.6 and § 1508.5), your agency's specific responsibilities as a cooperating agency would include:

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We look forward to your response to this request and your role as a cooperating agency on this study. If you have questions or would like to discuss the project in more detail or our agencies' respective roles and responsibilities during the preparation of the NEPA document, please contact Ms. Campbell at the email above or by phone at (410) 962-6704.

Sincerely,

Daniel M. Bierly
Chief, Civil Project Development Branch
Planning Division

Enclosure

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, Maryland 21401
http://www.fws.gov/chesapeakebay

October 3, 2019

Daniel M. Bierly,
Chief, Civil Project Development Branch, Planning Division
Army Corps of Engineers, Baltimore District
2 Hopkins Plaza
Baltimore, MD 21201

RE: Request to be a Cooperating or Participating Agency in the Baltimore Coastal Storm Risk Reduction Feasibility Study

Dear Mr. Bierly:

This responds to your letter, dated September 9, 2019, requesting participation of the U.S. Fish and Wildlife Service (Service) as a cooperating or participating agency in a feasibility study to investigate coastal storm risk problems in the Baltimore metropolitan area. We have reviewed the information provided and the following response is in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq*.) and Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq*.).

Background

The U.S. Army Corps of Engineers, Baltimore District (Corps) is developing a feasibility study to investigate coastal storm risk problems in the Baltimore metropolitan area with the intent of developing solutions to reduce future risk. The study is built upon the Corps' North Atlantic Comprehensive Study (NACCS) (USACE, 2015) of which the Service was a cooperating agency. The NACCS identified nine high-risk areas that warrant further investigation with regard to coastal storm risk management solutions. One of these nine areas is the Baltimore metropolitan area. The intent of this study is to identify alternative plans to reduce coastal storm risk in a way that supports long-term resilience and sustainability of communities and ecosystems. The study focuses on the Patapsco River in Baltimore City, Baltimore County, and Anne Arundel County. The Corps requests that the Service participates as a cooperating or participating agency as described in the National Environmental Policy Act (NEPA) of 1969.

Service Resources and Response to the Corps Request

The Greater Baltimore region has become an important area to the Service with the establishment of the Baltimore Rivers to Harbor Urban Wildlife Refuge Partnership. The Service has been participating in a number of habitat restoration projects in the Patapsco River watershed including: the Masonville Cove restoration project; Cox Creek/Swan Cove restoration project; Ridgely Cove restoration project; and the Bloede Dam removal project. Objectives of these

projects include increasing aquatic function for resident and migratory fish, including shad and river herring, as well as creating riparian buffers for migratory birds. Because of the importance of the Patapsco River in the Service's Baltimore Rivers to Harbor Urban Wildlife Refuge Partnership, the Service requests to be a cooperating agency in the proposed feasibility study.

The Service appreciates the opportunity to work with the Corps to ensure that the goals of this feasibility study are achieved, while proactively benefitting fish and wildlife resources. If you have any further questions or concerns, please contact Chris Guy of my staff at (410) 573-4529 or chris_guy@fws.gov.

Sincerely,

Julie A. Slacum

Acting For
Genevieve LaRouche
Field Supervisor

References

USACE 2015. https://www.nad.usace.army.mil/CompStudy/

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201-2930

September 9, 2019

Gregory Murrill
Division Administrator
Federal Highway Administration - Maryland Division
George H. Fallon Federal Building
31 Hopkins Plaza, Suite 1520
Baltimore, MD 21201

Dear Mr. Murrill:

The U. S. Army Corps of Engineers, Baltimore District (USACE), has begun a feasibility study to investigate coastal storm risk problems in the Baltimore metropolitan area and develop solutions to reduce future risk (see enclosed study area map). The non-federal sponsor is the Maryland Department of Transportation (MDOT). As part of the feasibility study, we are preparing environmental documents pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. As the lead federal agency under NEPA, we are inviting your participation as a cooperating agency in the development of the environmental documents (either an Environmental Impact Statement or an Environmental Assessment). The NEPA documents will evaluate environmental impacts from project alternatives. We are currently formulating alternatives, and the draft integrated Feasibility Report and NEPA document is tentatively scheduled to be released in the fall of 2020.

The study is built upon the USACE North Atlantic Coast Comprehensive Study (NACCS), which identified nine high-risk areas that warrant further investigation of coastal storm risk management solutions, including the Baltimore area. More information on the NACCS can found at: https://www.nad.usace.army.mil/CompStudy/.

The study will seek to identify alternative plans to reduce coastal storm risks in ways that support the long-term resilience and sustainability of human communities and the coastal ecosystem. More information on the Baltimore Metropolitan Coastal Storm Risk Management Study can be found at: https://www.nab.usace.army.mil/missions/civil-works/baltimore-coastal-study/.

Based on your agency's jurisdiction by law and/or special expertise, your participation as a cooperating agency may enhance the interdisciplinary capability of the USACE and contribute to a more thorough evaluation of the proposed plan.

In accordance with the Council on Environmental Quality final implementing regulations for NEPA (40 C.F.R. § 1501.6 and § 1508.5), your agency's specific responsibilities as a cooperating agency would include:

- Participation in agency coordination meetings, conference calls, and site visits;
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- Timely review of the draft and final NEPA document prior to public review to communicate any concerns of your agency.

Please provide your written statement of interest to this invitation and an agency point of contact within 30 days of this letter. If you elect not to become a cooperating agency, you must decline this invitation in writing within 30 days of this letter, indicating that your agency has no jurisdiction or authority with respect to the project, no expertise or information relevant to the project, does not have adequate funds to participate in the project, or does not intend to submit comments on the project. Your response may be transmitted electronically to Ms. Vanessa Campbell, Project Biologist at Vanessa.m.campbell@usace.army.mil. Please be advised that if your agency does not respond within the specified timeframe, your agency will automatically become a cooperating agency.

We look forward to your response to this request and your role as a cooperating agency on this study. If you have questions or would like to discuss the project in more detail or our agencies' respective roles and responsibilities during the preparation of the NEPA document, please contact Ms. Campbell at the email above or by phone at (410) 962-6704.

Sincerely,

Daniel M. Bierly
Chief, Civil Project Development Branch
Planning Division

Enclosure

U.S. Department of Transportation
Federal Highway Administration

Maryland Division

31 Hopkins Plaza, Suite 1520
Baltimore, MD 21201
(410) 962-4440
(410) 962-4054
http://www.fhwa.dot.gov/mddiv/

October 4, 2019

In Reply Refer To:
HDA-MD

Mr. Daniel M. Bierly
Chief, Civil Project Development Branch
Corps of Engineers, Baltimore District
2 Hopkins Plaza
Baltimore, MD 21201

Dear Mr. Bierly:

In response to your September 9, 2019 letter, the Federal Highway Administration accepts U.S. Army Corps of Engineers, Baltimore District's invitation to be a cooperating agency in its undertaking to investigate coastal storm risk problems in the Baltimore metropolitan area.

As a cooperating agency, per 40 CFR §1501.6 and §1508.5, we will participate in agency coordination meetings and site visits as appropriate, provide comment and feedback on NEPA document development and environmental impacts, and identify any issues related to our agency's special expertise.

Thank you for the opportunity to participate as a cooperating agency. We look forward to working with you as the feasibility study is developed. We have designated Ms. Jeanette Mar, Environmental Program Manager as the point of contact (POC) for this study. If you have any questions, she can be reached at (410) 779-7152 or Jeanette.mar@dot.gov.

Sincerely,

Bill Wade
for Gregory Murrill
Division Administrator

cc: Ms. Vanessa Campbell, USACE, Project Biologist

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201-2930

September 9, 2019

Michael Pentony
Regional Administrator
Greater Atlantic Regional Fisheries Office
Office of National Marine Fisheries Service
55 Great Republic Drive
Gloucester, Massachusetts 01930

Dear Mr. Pentony:

The U. S. Army Corps of Engineers, Baltimore District (USACE), has begun a feasibility study to investigate coastal storm risk problems in the Baltimore metropolitan area and develop solutions to reduce future risk (see enclosed study area map). The non-federal sponsor is the Maryland Department of Transportation (MDOT). As part of the feasibility study, we are preparing environmental documents pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. As the lead federal agency under NEPA, we are inviting your participation as a cooperating agency in the development of the environmental documents (either an Environmental Impact Statement or an Environmental Assessment). The NEPA documents will evaluate environmental impacts from project alternatives. We are currently formulating alternatives, and the draft integrated Feasibility Report and NEPA document is tentatively scheduled to be released in the fall of 2020.

The study is built upon the USACE North Atlantic Coast Comprehensive Study (NACCS), which identified nine high-risk areas that warrant further investigation of coastal storm risk management solutions, including the Baltimore area. More information on the NACCS can found at: https://www.nad.usace.army.mil/CompStudy/.

The study will seek to identify alternative plans to reduce coastal storm risks in ways that support the long-term resilience and sustainability of human communities and the coastal ecosystem. More information on the Baltimore Metropolitan Coastal Storm Risk Management Study can be found at: https://www.nab.usace.army.mil/missions/civil-works/baltimore-coastal-study/.

Based on your agency's jurisdiction by law and/or special expertise, specifically under the Magnuson-Stevens Fishery Conservation and Management Act, Fish and Wildlife Coordination Act and Endangered Species Act, your participation as a cooperating agency may enhance the interdisciplinary capability of the USACE and contribute to a more thorough evaluation of the proposed plan.

In accordance with the Council on Environmental Quality final implementing regulations for NEPA (40 C.F.R. § 1501.6 and § 1508.5), your agency's specific responsibilities as a cooperating agency would include:

- Participation in agency coordination meetings, conference calls, and site visits;
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We look forward to your response to this request and your role as a cooperating agency on this study. If you have questions or would like to discuss the project in more detail or our agencies' respective roles and responsibilities during the preparation of the NEPA document, please contact Ms. Campbell at the email above or by phone at (410) 962-6704.

Sincerely,

Daniel M. Bierly
Chief, Civil Project Development Branch
Planning Division

Enclosure

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930-2276

October 10, 2019

Daniel Bierly, Chief
Civil Project Development Branch
Planning Division
US Army Corps of Engineers
Baltimore District
2 Hopkins Plaza
Baltimore, MD 21201-2930

RE: Baltimore Metropolitan Coastal Storm Risk Management Feasibility Study

Dear Mr. Bierly:

Thank you for your September 9, 2019, letter inviting us to be a cooperating agency on the preparation of environmental documents pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, regarding the feasibility study to investigate potential solutions to reduce flood risk associated with coastal storm events in the Baltimore, Maryland metropolitan area. Because this project is covered under the provisions of Section 1005 of the Water Resources Reform and Development Act of 2014 (WRRDA 2014), we accept your invitation to become a cooperating agency for this project.

Our role and degree of involvement is dependent on existing staff and fiscal resources, and our contribution to the process will be limited to participating in project meetings and providing written comments in response to your documents prepared as part of the National Environmental Policy Act (NEPA) process. We will provide technical information identifying aquatic species and habitats of concern, identification of issues to be considered and evaluated during the NEPA process and guidance on evaluating, avoiding, and minimizing project effects to our trust resources. At this time, we are unable to undertake any data collection, conduct analyses or to prepare any sections of the NEPA document as our staff and resources are fully committed to other obligatory programs of NOAA Fisheries.

Please note that our involvement as a cooperating agency does not constitute an endorsement of this project, nor does it obviate the need for consultations required under the Magnuson-Stevens Fishery Conservation and Management Act, Fish and Wildlife Coordination Act, and the Endangered Species Act.

We look forward to working with you and your staff as the project moves forward. If you have any questions regarding this matter, please contact Kristy Beard in our Annapolis, MD field office (kristy.beard@noaa.gov) or Brian Hopper in our Protected Resources Division

(brian.d.hopper@noaa.gov) regarding threatened and endangered species listed by us under the ESA.

Sincerely,

for

Louis A. Chiarella
Assistant Regional Administrator
Habitat Conservation Division

cc: Vanessa Campbell, NAB Corps
Kristy Beard, HCD
Mark Murray-Brown, PRD
Chris Vaccaro, PRD
Brian Hopper, PRD

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201-2930

September 9, 2019

MaryAnn Tierney
Regional Administrator
Federal Emergency Management Agency-Region III
615 Chestnut Street
One Independence Mall, Sixth Floor
Philadelphia, PA 19106-4404

Dear Ms. Tierney,

The U. S. Army Corps of Engineers, Baltimore District (USACE), has begun a feasibility study to investigate coastal storm risk problems in the Baltimore metropolitan area and develop solutions to reduce future risk (see enclosed study area map). The non-federal sponsor is the Maryland Department of Transportation (MDOT). As part of the feasibility study, we are preparing environmental documents pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. As the lead federal agency under NEPA, we are inviting your participation as a cooperating agency in the development of the environmental documents (either an Environmental Impact Statement or an Environmental Assessment). The NEPA documents will evaluate environmental impacts from project alternatives. We are currently formulating alternatives, and the draft integrated Feasibility Report and NEPA document is tentatively scheduled to be released in the fall of 2020.

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Sincerely,

Daniel M. Bierly
Chief, Civil Project Development Branch
Planning Division

Enclosure

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MD 21201

Jonathan M. Watson
Marine Habitat Resource Specialist
NOAA Fisheries Greater Atlantic Regional Fisheries Office
Habitat & Ecosystem Services Division (Habitat Conservation)
177 Admiral Cochrane Drive
Annapolis, MD 21401

March 3, 2022

Dear Mr. Watson:

In compliance with the National Environmental Policy Act (NEPA), the U.S. Army Corps of Engineers (USACE) Baltimore District, is preparing an Integrated Feasibility Report/ Environmental Assessment for the Baltimore Coastal Storm Risk Management Study in Baltimore, MD. This study originally began in August 2019. The study was paused in February 2020 because of an interruption in funding. Funding was restored and the study re-started in July 2021, and shortly thereafter, coordination with the agencies resumed. On December 29, 2021, USACE (Chris Johnson, Biologist) re-initiated coordination with NOAA Fisheries (Jonathan Watson) via email. The email included information pertaining to past coordination efforts with NOAA Fisheries from November 2019, and asked Mr. Watson for the necessary processes to ensure Essential Fish Habitat (EFH) coordination and documentation was performed accurately and thoroughly as the study progresses.

To reiterate, the study's purpose is to reduce coastal flood risk to vulnerable populations, properties, infrastructure, and environmental and cultural resources, while considering future climate and sea level change scenarios. Two separate study areas are being analyzed for this study; Baltimore City and Martin State Airport, the latter being located in Baltimore County. The objectives for the Baltimore City portion of the study area include reducing economic damages associated with coastal flooding to residential, commercial, industrial, and government buildings while also protecting critical infrastructure, such as utilities, roadways, and electronic services. The objective of the Martin State Airport portion of the study area is to reduce coastal flooding impacts that may disrupt or damage transportation and emergency service infrastructure and assets that support the airport. The initial array of 11 alternatives were screened down to four (Alternatives 4-7). The alternatives and their locations are listed in the table below and shown in the attached maps:

Location	Structural/Non-Structural	Alt 4	Alt 5	Alt 6	Alt 7
Patapsco Wastewater Treatment Plant	Non-Structural	X	X	X	X
Martin State Airport (Baltimore County)	Non-Structural	X	X	X	X
Fort McHenry	Non-Structural	X	X	X	
Inner Harbor	Non-Structural		X	X	
Canton	Non-Structural		X	X	
US Coast Guard Yard	Non-Structural		X	X	X
I-895 & I-95 Tunnel Entrances Floodwall	Structural	X	X	X	X
Seagirt Terminal Floodwall	Structural			X	X
Inner Harbor Floodwalls	Structural				X
Canton Floodwalls	Structural				X
Fells Point Floodwalls	Structural				X
Martin State Airport Perimeter Road Elevation (Baltimore County)	Structural				X

In December 2021, USACE developed an EFH report through the NOAA 'EFH Mapper'. Below are the list of species and life stages found at the location used for the mapper. Additionally, the Atlantic sturgeon and the short-nosed sturgeon were identified through the Endangered Species Act (ESA) Section 7 mapper as potentially occurring within the study area.

EFH Species	Life Stage
Atlantic Butterfish	Adult, larvae, eggs
Atlantic Herring	Adult, juvenile
Black Sea Bass	Adult, juvenile
Bluefish	Adult, juvenile
Clearnose Skate	Adult, juvenile
Little Skate**	Adult
Red Hake	Adult, juvenile, eggs, larvae
Scup	Adult, juvenile
Summer flounder*	Adult, juvenile, larvae
Windowpane Flounder	Adult, juvenile
Winter Skate**	Adult
* = Habitat Areas of Particular Concern (HAPC)	
** = No longer have EFH designated in the Chesapeake Bay, per the Final Omnibus EFH Amendment 2 dated October 25, 2017 (NEFMC2017) and codified in 50 CFR Part 648 *et seq*. (Info provided by Jonathan Watson to Chris Johnson, via email on December 29, 2021).	

Although the species listed above may exist within the vicinity of study areas, there will be no in-water construction, mobilization, or placement of structures during the life of the study. Additionally, state, county, and/or City best management practices and guidelines, as well as erosion and sediment control measures will be followed during the construction process. For these reasons, USACE is seeking concurrence from NOAA Fisheries that no further EFH assessments, worksheets, or coordination are required to complete this study. In the unlikely event changes to the proposed alternatives or the methods of construction occur, USACE will re-engage with your office to re-initiate coordination.

As mentioned previously, an Integrated Feasibility Report/Environmental Assessment will be drafted for this project, including the alternatives. USACE will notify your office when the draft document is available for review, and we would welcome any comments your office may have. If you have any questions about USACE's proposed course of action for NOAA Fisheries resources as they pertain to this project, please contact Chris Johnson by email at Christopher.a.johnson@usace.army.mil, or by phone (443-807-7461).

Sincerely,

Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch
Planning Division

Enclosure: Site Maps

Non-Structural Measures at Federal Facilities at Fort McHenry

Floodwall around Interstate 95 Highway Tunnel Entrance

Floodwall around Transportation Critical Facilities

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 895 Highway Tunnel Entrance

Non-Structural Measures at Patapsco Wastewater Treatment Plant

Non-Structural Measures at Martin State Airport

MARTIN STATE AIRPORT INSET MAP

Planning Units

NONSTRUCTURAL MEASURES

Eligible Structures for Floodproofing

STRUCTURAL MEASURES

Floodwall

US Army Corps of Engineers
Baltimore District

Alternative Plan 4
Critical Infrastructure Plan
Baltimore and Martin State Airport, Maryland

NORTH

0 5,000 10,000
Feet

Map: Critical Infrastructure Plan.mxd
Developed by: USACE Baltimore
Date: 2/18/2022

Non-Structural Measures - Inner Harbor & Canton

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 95 Highway Tunnel Entrance

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 895 Highway Tunnel Entrance

Non-Structural Measures at Patapsco Wastewater Treatment Plant

Non-Structural Measures at US Coast Guard Facility

Planning Units

NONSTRUCTURAL MEASURES

Eligible Structures for Floodproofing

STRUCTURAL MEASURES

Floodwall

MARTIN STATE AIRPORT INSET MAP

US Army Corps of Engineers
Baltimore District

Alternative Plan 5
Critical Infrastructure with Non-Structural Measures Plan
Baltimore & Martin State Airport, Maryland

NORTH

Map: Critical Infrastructure + NonStructural Plan.mxd
Developed by: USACE Baltimore
Date: 2/10/2022

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Feet

Non-Structural Measures - Inner Harbor & Canton

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 95 Highway Tunnel Entrance

Seagirt Terminal Floodwall

Floodwall at Interstate 895 Highway Tunnel Entrance

Non-Structural Measures at Patapsco Wastewater Treatment Plant

Non-Structural Measures at US Coast Guard Facility

Planning Units

NONSTRUCTURAL MEASURES

Eligible Structures for Floodproofing

STRUCTURAL MEASURES

Floodwall

MARTIN STATE AIRPORT INSET MAP

US Army Corps of Engineers
Baltimore District

Alternative Plan 6
Critical Balanced Plan - Critical Infrastructure with Non-Structural Measures Plan and Port of Baltimore Floodwalls
Baltimore & Martin State Airport, Maryland

NORTH

0 8,000 16,000
Feet

Map: Critical Balanced Plan.mxd
Developed by: USACE Baltimore
Date: 2/10/2022

Inner Harbor Floodwalls

Locus Point North Floodwalls

Floodwall around Transportation Critical Facilities

Floodwall at Wheelabrator Incinerator Plant

Floodwall at Interstate 95 Highway Tunnel Entrance

Seagirt Terminal Floodwall

Floodwall at Interstate 895 Highway Tunnel Entrance

Non-Structural Measures at Patapsco Wastewater Treatment Plant

Planning Units

NONSTRUCTURAL MEASURES

Eligible Structures for Floodproofing

STRUCTURAL MEASURES

Pump Stations (Approximate Location)

Floodwall

Perimeter Road Elevation

MARTIN STATE AIRPORT INSET MAP

Elevation of Airport Perimeter Roads

US Army Corps of Engineers
Baltimore District

Alternative Plan 7
Mid-Tier Plan
Baltimore & Martin State Airport, Maryland

NORTH

Map: Mid-Tier.mxd
Developed by: USACE Baltimore
Date: 2/22/2022

0 8,000 16,000
Feet

From: Johnson, Christopher A CIV USARMY CENAB (USA)
To: Jonathan Watson - NOAA Federal
Cc: Ciaramellano Campbell, Vanessa M CIV USARMY CENAB (USA); Karen Greene - NOAA Federal
Subject: RE: [URL Verdict: Neutral][Non-DoD Source] Re: Baltimore Coastal Storm Risk Management Study
Date: Monday, March 7, 2022 12:57:00 PM

Hi Jonathan,

Thank you for your quick response! The email correspondence below will suffice for our efforts. Again, if any changes to the project occurs, we will be sure to reach back out.

Thanks again,

Chris Johnson
Biologist
U.S. Army Corps of Engineers
Baltimore District, Planning Division
2 Hopkins Plaza Baltimore, MD 21201
Phone: (410) 962-2926
Email: christopher.a.johnson@usace.army.mil

From: Jonathan Watson - NOAA Federal <jonathan.watson@noaa.gov>
Sent: Friday, March 4, 2022 3:18 PM
To: Johnson, Christopher A CIV USARMY CENAB (USA) <Christopher.A.Johnson@usace.army.mil>
Cc: Ciaramellano Campbell, Vanessa M CIV USARMY CENAB (USA) <Vanessa.M.Campbell@usace.army.mil>; Karen Greene - NOAA Federal <karen.greene@noaa.gov>
Subject: Re: [URL Verdict: Neutral][Non-DoD Source] Re: Baltimore Coastal Storm Risk Management Study

Hi Chris,

Thank you for providing this information regarding the Baltimore Coastal Storm Risk Management Study. Based on the information presented in the documents provided and the fact that no in-water work is proposed, we concur that these projects will not directly affect essential fish habitat (EFH) which we work to protect under the authority of the Magnuson Stevens Fisheries Conservation and Management Act. As indicated in your letter, please reconsult with us should project plans change such that effects to EFH are anticipated. Finally, please let us know if you require indicating our concurrence for your records, or if this correspondence will suffice.

Best regards,

Jonathan Watson

On Thu, Mar 3, 2022 at 4:36 PM Johnson, Christopher A CIV USARMY CENAB (USA) <Christopher.A.Johnson@usace.army.mil> wrote:

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MD 21201

Brian D. Hopper
Protected Resources Division
NOAA Fisheries
Greater Atlantic Regional Fisheries Office
200 Harry S Truman Parkway, Suite 460
Annapolis, MD 21401

March 16, 2022

Dear Mr. Hopper:

In compliance with the National Environmental Policy Act (NEPA), the U.S. Army Corps of Engineers (USACE) Baltimore District, is preparing an Integrated Feasibility Study/ Environmental Assessment for the Baltimore Coastal Storm Risk Management Study in Baltimore, MD. This study originally began in August 2019. The study was paused in February 2020 because of an interruption in funding. Funding was restored and the study re-started in July 2021, and shortly thereafter, coordination with the agencies resumed. On December 28, 2021, USACE (Chris Johnson, Biologist) re-initiated coordination with NOAA Fisheries – Protected Resources Division (Brian Hopper) via email. The email included information pertaining to past coordination efforts with NOAA Fisheries – Protected Resources Division from November 2019, and asked Mr. Hopper for the necessary processes to ensure protected and endangered species coordination and documentation was performed accurately and thoroughly as the study progresses.

To reiterate, the study's purpose is to reduce coastal flood risk to vulnerable populations, properties, infrastructure, and environmental and cultural resources, while considering future climate and sea level change scenarios. Two separate study areas are being analyzed for this study; Baltimore City and Martin State Airport, the latter being located in Baltimore County. The objectives for the Baltimore City portion of the study area include reducing economic damages associated with coastal flooding to residential, commercial, industrial, and government buildings while also protecting critical infrastructure, such as utilities, roadways, and electronic services. The objective of the Martin State Airport portion of the study area is to reduce coastal flooding impacts that may disrupt or damage transportation and emergency service infrastructure and assets that support the airport. The initial array of 11 alternatives were screened down to four (Alternatives 4-7). The alternatives and their locations are listed in the table below:

Location	Structural/Non-Structural	Alt 4	Alt 5	Alt 6	Alt 7
Patapsco Wastewater Treatment Plant	Non-Structural	X	X	X	X
Martin State Airport (Baltimore County)	Non-Structural	X	X	X	X
Fort McHenry	Non-Structural	X	X	X	
Inner Harbor	Non-Structural		X	X	
Canton	Non-Structural		X	X	
US Coast Guard Yard	Non-Structural		X	X	X
I-895 & I-95 Tunnel Entrances Floodwall	Structural	X	X	X	X
Seagirt Terminal Floodwall	Structural			X	X
Inner Harbor Floodwalls	Structural				X
Canton Floodwalls	Structural				X
Fells Point Floodwalls	Structural				X
Martin State Airport Perimeter Road Elevation (Baltimore County)	Structural				X

In December 2021, USACE developed a Section 7 Consultation report through the NOAA Endangered Species Act (ESA) Section 7 Mapper. Below are the list of species and life stages found at the location used for the mapper.

ESA Species	Life Stage	Behavior
Atlantic Sturgeon	Adult, Subadult, Juvenile	Migrating & Foraging
Shortnose Sturgeon	Adult	Migrating, Foraging, Overwintering

Although the species listed above may exist within the vicinity of study areas, there will be no in-water construction, mobilization, or placement of structures during the life of the project. Additionally, state, county, and/or City best management practices and guidelines, as well as erosion and sediment control measures will be followed during the construction process. For these reasons, USACE is seeking concurrence from NOAA Fisheries – Protected Resources Division that no further ESA Section 7 coordination is required to complete this study. In the unlikely event changes to the proposed alternatives or the methods of construction occur, USACE will re-engage with your office to re-initiate coordination.

As mentioned previously, an Integrated Feasibility Study/Environmental Assessment will be drafted for this project, including the alternatives. USACE will notify your office when the draft document is available for review, and we would welcome any comments your office may have. If you have any questions about USACE's proposed course of action for ESA resources as they pertain to this project, please contact Chris Johnson by email at Christopher.a.johnson@usace.army.mil, or by phone (443-807-7461).

Sincerely,

Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch
Planning Division

Enclosure: Site Maps

Non-Structural Measures at Federal Facilities at Fort McHenry

Floodwall around Interstate 95 Highway Tunnel Entrance

Floodwall around Transportation Critical Facilities

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 895 Highway Tunnel Entrance

Non-Structural Measures at Patapsco Wastewater Treatment Plant

Non-Structural Measures at Martin State Airport

MARTIN STATE AIRPORT INSET MAP

Planning Units

NONSTRUCTURAL MEASURES

Eligible Structures for Floodproofing

STRUCTURAL MEASURES

Floodwall

US Army Corps of Engineers
Baltimore District

Alternative Plan 4
Critical Infrastructure Plan
Baltimore and Martin State Airport, Maryland

NORTH

0 5,000 10,000
Feet

Map: Critical Infrastructure Plan.mxd
Developed by: USACE Baltimore
Date: 2/18/2022

Non-Structural Measures - Inner Harbor & Canton

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 95 Highway Tunnel Entrance

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 895 Highway Tunnel Entrance

Non-Structural Measures at Patapsco Wastewater Treatment Plant

Non-Structural Measures at US Coast Guard Facility

Planning Units

NONSTRUCTURAL MEASURES

Eligible Structures for Floodproofing

STRUCTURAL MEASURES

Floodwall

MARTIN STATE AIRPORT INSET MAP

US Army Corps of Engineers
Baltimore District

Alternative Plan 5
Critical Infrastructure with Non-Structural Measures Plan
Baltimore & Martin State Airport, Maryland

NORTH

Map: Critical Infrastructure + NonStructural Plan.mxd
Developed by: USACE Baltimore
Date: 2/10/2022

0 7,500 15,000
Feet

Non-Structural Measures - Inner Harbor & Canton

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 95 Highway Tunnel Entrance

Seagirt Terminal Floodwall

Floodwall at Interstate 895 Highway Tunnel Entrance

Non-Structural Measures at Patapsco Wastewater Treatment Plant

Non-Structural Measures at US Coast Guard Facility

Planning Units

NONSTRUCTURAL MEASURES

Eligible Structures for Floodproofing

STRUCTURAL MEASURES

Floodwall

MARTIN STATE AIRPORT INSET MAP

US Army Corps of Engineers
Baltimore District

Alternative Plan 6
Critical Balanced Plan - Critical Infrastructure with Non-Structural Measures Plan and Port of Baltimore Floodwalls
Baltimore & Martin State Airport, Maryland

NORTH

0 8,000 16,000
Feet

Map: Critical Balanced Plan.mxd
Developed by: USACE Baltimore
Date: 2/10/2022

Inner Harbor Floodwalls

Locus Point North Floodwalls

Floodwall around Transportation Critical Facilities

Floodwall at Wheelabrator Incinerator Plant

Floodwall at Interstate 95 Highway Tunnel Entrance

Seagirt Terminal Floodwall

Floodwall at Interstate 895 Highway Tunnel Entrance

Non-Structural Measures at Patapsco Wastewater Treatment Plant

Planning Units

NONSTRUCTURAL MEASURES

Eligible Structures for Floodproofing

STRUCTURAL MEASURES

Pump Stations (Approximate Location)

Floodwall

Perimeter Road Elevation

MARTIN STATE AIRPORT INSET MAP

Elevation of Airport Perimeter Roads

US Army Corps of Engineers
Baltimore District

Alternative Plan 7
Mid-Tier Plan
Baltimore & Martin State Airport, Maryland

NORTH

Map: Mid-Tier.mxd
Developed by: USACE Baltimore
Date: 2/22/2022

0 8,000 16,000
Feet

From: Brian D Hopper - NOAA Federal
To: Johnson, Christopher A CIV USARMY CENAB (USA)
Cc: Ciaramellano Campbell, Vanessa M CIV USARMY CENAB (USA); Jonathan Watson - NOAA Federal
Subject: [URL Verdict: Neutral][Non-DoD Source] Re: Baltimore Coastal Storm Risk Management Study
Date: Thursday, March 17, 2022 8:00:41 AM

Hi Chris,

Thank you for providing the project information. My sincerest apologies for not reaching out sooner, but I've got two formal consultations running back to back and they are taking up 100% of my time. Anyway, your email and letter dated March 16, 2022, regarding the Army Corps' proposed Baltimore Coastal Storm Risk Management Study in Baltimore, MD, requested information on the presence of ESA-listed species under our jurisdiction.

Although four species of sea turtles, shortnose sturgeon, and Atlantic sturgeon originating from five Distinct Population Segments (DPS) are known to occur in the Chesapeake Bay and its rivers and tributaries, based on the activities associated with the project, the location the project, and information you provided in your letter and email, we believe that these species will not be exposed to any direct or indirect effects of the action. Therefore, we do not believe a consultation in accordance with section 7 of the Endangered Species Act (ESA) is necessary. As such, no further coordination on this activity with the NMFS Protected Resources Division is necessary at this time. Should there be additional changes to the project plans or new information becomes available that changes the basis for this determination, further coordination should be pursued. Please contact me (brian.d.hopper@noaa.gov), should you have any questions regarding these comments. If you have any questions about essential fish habitat, please contact Jonathan Watson in our Habitat and Ecosystems Services Division's Annapolis Field Office (jonathan.watson@noaa.gov, 410-295-3152).

Regards,
-Brian

On Wed, Mar 16, 2022 at 4:15 PM Johnson, Christopher A CIV USARMY CENAB (USA) <Christopher.A.Johnson@usace.army.mil> wrote:

> Good Afternoon Brian,
>
> It’s been a few weeks since we last spoke and I know we’ve been trying to schedule a meeting to discuss the Baltimore CSRM project but I understand we just haven’t been able to sync up. So I’m reaching out today to provide some more information in regard to the project.
>
> We’ve started to solidify our alternatives but are still working towards selecting our tentatively selected plan. As we’ve worked through the alternatives, we’ve come to the realization that we will have no in-water construction, mobilization, or placement of structures during the entirety of this study. For these reasons, USACE is seeking concurrence from your agency that no further ESA (Section 7) assessments are required to complete this study. I attached a coordination letter and site maps to this email for your review, reference, and comment at your earliest convenience. If you have any questions, please feel free to reach out to me via email or phone.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MD 21201

June 1, 2022

Lori Byrne, Environmental Review Specialist
Wildlife and Heritage Service
Maryland Department of Natural Resources
580 Taylor Avenue
Tawes State Office Building E-1
Annapolis, MD 21401
Lori.byrne@maryland.gov

Dear Ms. Byrne:

The U.S. Army Corps of Engineers, Baltimore District (USACE), in cooperation with the Maryland Department of Transportation (MDOT), has restarted a feasibility study to examine the Baltimore metropolitan area for problems, needs, and opportunities for improvements related to coastal storm risk. This study originally began in August 2019. The study was paused in February 2020 because of an interruption in funding. Funding was restored and the study re-started in July 2021. The study's purpose is to reduce coastal flood risk to vulnerable populations, properties, infrastructure, and environmental and cultural resources, while considering future climate and sea level change scenarios. More information on the Baltimore Metropolitan Coastal Storm Risk Management Study can be found at: https://www.nab.usace.army.mil/missions/civil-works/baltimore-coastal-study/.

This effort is a spin-off study of the North Atlantic Coast Comprehensive Study (NACCS) that was completed in January 2015 and was commissioned by Congress as part of Hurricane Sandy recovery. The purpose of NACCS was to help local communities better understand their changing flood risks due to climate change and provide them tools to be better prepared for the future. The Baltimore metropolitan region was one of nine high-risk areas identified in NACCS as needing further analysis. More information on the NACCS can be found at: https://www.nad.usace.army.mil/CompStudy/.

As part of the feasibility study, USACE will prepare an Integrated Feasibility Report (IFR) and Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. An initial array of 11 alternatives was screened down to four, and as of earlier this month, a Tentatively Selected Plan (TSP) was selected (please see enclosure). The TSP will include structural floodwalls around the I-95 and I-895 tunnel entrances and associated critical infrastructure, and nonstructural floodproofing measures along areas within Locust Point, Riverside, Inner Harbor, Canton, and Fells Point. It should be noted that no in-water work is anticipated with this study. USACE would like to request information or comments from your agency that may assist us with the Baltimore Metropolitan Coastal Storm Risk Management Study NEPA document. Following your review, we would appreciate an opinion as to whether any rare, threatened, endangered, or species in need of conservation exist within the study area.

We look forward to the receipt of your findings and appreciate your assistance with this matter. If additional information is required, please do not hesitate to contact Chris Johnson at (443) 807-7461 or at Christopher.a.johnson@usace.army.mil.

Sincerely,

Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch
Planning Division

Enclosures

Non-Structural Measures - Fells Point & Canton

Non-Structural Measures - Inner Habor

Non-Structural Measures - Riverside

Non-Structural Measures - North Locust Point

Floodwall at Interstate 95 Highway Tunnel Entrance

Non-Structural Measures - South Locust Point

Floodwall around Transportation Critical Facilities

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 895 Highway Tunnel Entrance

STRUCTURAL MEASURES

Floodwall

SELECT NONSTRUCTURAL MEASURES BASED ON ANNUAL EXCEEDANCE PROBABILITIES (AEP) WATER SURFACE ELEVATIONS

Area for Floodproofing to 5% AEP Elevation

Area for Floodproofing to 2% AEP Elevation

Area for Floodproofing to 1% AEP Elevation

US Army Corps of Engineers
Baltimore District

Tentatively Selected Plan - Alternative Plan 5A
Critical Infrastructure with Select Non-Structural Measures Plan
Baltimore, Maryland

NORTH

Map: Critical Infrastructure with Select NonStructural Plan.mxd
Developed by: USACE Baltimore
Date: 4/1/2022

0 3,000 6,000
Feet

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MD 21201

June 1, 2022

Matt Wallach
Natural Resources Planner
Tidal Wetlands Division
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230
matthew.wallach@maryland.gov

Dear Mr. Wallach:

The U.S. Army Corps of Engineers, Baltimore District (USACE), in cooperation with the Maryland Department of Transportation (MDOT), has restarted a feasibility study to examine the Baltimore metropolitan area for problems, needs, and opportunities for improvements related to coastal storm risk. This study originally began in August 2019. The study was paused in February 2020 because of an interruption in funding. Funding was restored and the study re-started in July 2021. The study's purpose is to reduce coastal flood risk to vulnerable populations, properties, infrastructure, and environmental and cultural resources, while considering future climate and sea level change scenarios. More information on the Baltimore Metropolitan Coastal Storm Risk Management Study can be found at: https://www.nab.usace.army.mil/missions/civil-works/baltimore-coastal-study/.

This effort is a spin-off study of the North Atlantic Coast Comprehensive Study (NACCS) that was completed in January 2015 and was commissioned by Congress as part of Hurricane Sandy recovery. The purpose of NACCS was to help local communities better understand their changing flood risks due to climate change and provide them tools to be better prepared for the future. The Baltimore metropolitan region was one of nine high-risk areas identified in NACCS as needing further analysis. More information on the NACCS can be found at: https://www.nad.usace.army.mil/CompStudy/.

As part of the feasibility study, USACE will prepare an Integrated Feasibility Report (IFR) and Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. An initial array of 11 alternatives was screened down to four, and a Tentatively Selected Plan (TSP) was selected (please see enclosure). The TSP will include structural floodwalls around the I-95 and I-895 tunnel entrances and associated critical infrastructure, and nonstructural floodproofing measures along areas within Locust Point, Riverside, Inner Harbor, Canton, and Fells Point. It should be noted that no in-water work is anticipated with this project.

Between the months of March and May of 2022, USACE (Chris Johnson, Biologist) spoke with Mr. Wallach via teleconference regarding potential impacts to tidal wetlands and/or impacts to areas within the Maryland 1972 Tidal Wetlands Boundary. A specific area of concern was identified east of the Ft. McHenry West Ventilation Building. Based on the information provided by Chris Johnson on the proposed project impacts, it was determined through verbal coordination with Mr. Wallach that USACE will not need to apply for a tidal wetland permit through MDE's Tidal Wetland Division. This is based on the premise that

the project impacts will be negligible and will not have any impacts to tidal wetlands or impacts within the Maryland 1972 Tidal Wetland Boundary. In the unlikely event changes to the proposed alternatives or the methods of construction occur, USACE will re-engage with your office to re-initiate coordination. If all accounts and statements presented in this letter are accurate, we look forward to receiving your concurrence. If additional information is required, please do not hesitate to contact Chris Johnson at (443) 807-7461 or at Christopher.a.johnson@usace.army.mil.

Sincerely,

Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch
Planning Division

Enclosure

Non-Structural Measures - Fells Point & Canton

Non-Structural Measures - Inner Habor

Non-Structural Measures - Riverside

Non-Structural Measures - North Locust Point

Floodwall at Interstate 95 Highway Tunnel Entrance

Non-Structural Measures - South Locust Point

Floodwall around Transportation Critical Facilities

Floodwall around Transportation Critical Facilities

Floodwall at Interstate 895 Highway Tunnel Entrance

STRUCTURAL MEASURES

Floodwall

SELECT NONSTRUCTURAL MEASURES BASED ON ANNUAL EXCEEDANCE PROBABILITIES (AEP) WATER SURFACE ELEVATIONS

Area for Floodproofing to 5% AEP Elevation

Area for Floodproofing to 2% AEP Elevation

Area for Floodproofing to 1% AEP Elevation

US Army Corps of Engineers
Baltimore District

Tentatively Selected Plan - Alternative Plan 5A
Critical Infrastructure with Select Non-Structural Measures Plan
Baltimore, Maryland

NORTH

Map: Critical Infrastructure with Select NonStructural Plan.mxd
Developed by: USACE Baltimore
Date: 4/1/2022

0 3,000 6,000
Feet

From: Matthew Wallach -MDE-
To: Johnson, Christopher A CIV USARMY CENAB (USA)
Cc: Tammy Roberson -MDE-
Subject: [URL Verdict: Neutral][Non-DoD Source] Re: Baltimore Coastal coordination letter
Date: Wednesday, June 1, 2022 4:49:07 PM

Hi Chris,

Thank you for discussing the project and for providing the map and Agency Coordination Letter. Below is a response to confirm what was previously discussed. I cc'd my Chief, Tammy Roberson on this email.

Thank you again for sharing the proposed floodwall project with MDE. As we discussed, a section of the project overlaps State Tidal Wetlands as was determined in the Maryland 1972 Tidal Wetland Maps. The State of Maryland reserves the right to regulate any fastland that was previously documented as State Tidal Wetlands in 1972, including any projects proposed in, on, over, or under the land that was previously State Tidal Wetlands. However, in this case, after discussing the proposal, we determined that the area in question is relatively small, is functioning as uplands, and no impacts are proposed to any area functioning as State Tidal Wetlands. Based on this, we determined that the State would not require review or authorization for the proposed work. This determination was made solely for this project based on how it was presented to the Department. Any future projects may have a different determination and if the scope of this project changes, the Department reserves the right to request an application to review the proposed work.

Matt Wallach
Natural Resources Planner
Tidal Wetlands Division
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230
matthew.wallach@maryland.gov
410-207-0893
Website | Facebook | Twitter

On Wed, Jun 1, 2022 at 1:22 PM Johnson, Christopher A CIV USARMY CENAB (USA) <Christopher.A.Johnson@usace.army.mil> wrote:

> Good Afternoon Matt,
>
> I'm following up with you from our phone conversation yesterday regarding the Baltimore Coastal Storm Risk Management study and potential impacts to tidal wetlands and/or areas within the 1972 Tidal Wetland Boundary. Attached is a coordination letter with project details as well as information pertaining to our phone conversations. Just to reiterate, this letter is to close the loop on any potential impacts to tidal wetlands or within the '72 boundary for our (USACE's) records. If all the information in the letter is correct and you're comfortable with how everything is stated, can you please provide your concurrence in

either an email response back to me or in a letter, whichever is easiest for you.

Thanks again for all your help with this process and please feel free to reach out with any questions or concerns.

Chris Johnson

Biologist

U.S. Army Corps of Engineers

Baltimore District, Planning Division

2 Hopkins Plaza Baltimore, MD 21201

Phone: (410) 962-2926

Email: christopher.a.johnson@usace.army.mil

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, Maryland 21401
http://www.fws.gov/chesapeakebay

April 6, 2022

Colonel Estee S. Pinchasin
District Engineer
U.S. Army Corps of Engineers
10 South Howard Street
Baltimore, MD 21201

Attn: Charles Leasure, Environmental Team Lead, Planning Division

RE: U.S. Fish and Wildlife Coordination Act 2(b) Report for the Baltimore Coastal Storm Risk Management Feasibility Study

Dear Colonel Pinchasin:

This letter constitutes the report of the U.S. Fish and Wildlife Service (Service) on the proposed Baltimore Coastal Storm Risk Management Feasibility Study in Baltimore City, MD. It is submitted in accordance with Section 2(b) of the Fish and Wildlife Coordination Act (48 Stat 401, as amended; 16 U.S.C. *et seq*.) and Section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1513 *et seq*.). The present report summarizes pertinent information and sets forth the Service's official position on the U.S. Corps of Engineers, Baltimore Districts (Corps) recommended plan as described below.

Project Description

The U.S. Army Corps of Engineers (Corps) requested assistance from the U.S. Fish and Wildlife Service (Service) in identifying positive and/or negative effects from a project along the Baltimore metro area within the City of Baltimore, Anne Arundel County and Baltimore County. The objective of this study is to investigate coastal flooding problems, needs and potential solutions for key locations in the Baltimore coastal study area. The Baltimore Coastal Study is a 3-year, $3 million study cost-shared evenly between the U.S. Army Corps of Engineers, Baltimore District, and the Maryland Department of Transportation, which is the non-Federal sponsor. A Federal cost-sharing agreement was signed in August 2019 between the agencies. The effort is a spin-off study of the 2-year North Atlantic Coast Comprehensive Study (NACCS) that was completed in January 2015 and was commissioned by Congress as part of Hurricane Sandy recovery. The purpose of NACCS was to help local communities better understand their changing flood risks due to climate change and provide them tools to be better prepared for the future. The Baltimore metropolitan region was one of nine high-risk areas identified in NACCS as needing further analysis. The goal is to reduce coastal flood risk at key locations to people, properties, infrastructure and resources in the study area, considering future

climate and sea level change scenarios. The intent of this study is to identify alternative plans to reduce coastal storm risk in a way that supports long-term resilience and sustainability of communities and ecosystems.

The tentatively selected plan (TSP) is a combination of certain components from previously proposed Alternative 5, and is being referred to as Alternative 5B, Critical Infrastructure and Select Nonstructural Plan. The structural components are floodwalls around the I-95 and I-895 tunnel entrances and associated critical infrastructure such as tunnel ventilation buildings. The nonstructural components associated with this alternative are floodproofing of select structures in the Inner Harbor, Canton, Fells Point and Locust Point areas. These were grouped into structures vulnerable under three storm scenarios and yielded the highest net benefits from areas proposed under the TSP (Appendix). As for the components previously discussed with the Corps regarding Martin State Airport, those are currently not included in the TSP and therefore will not be discussed in this document.

Service Comments

The Service reviewed the Feasibility Study with the objective of identifying the alternative that would meet the purpose and need while providing the largest benefit to fish and wildlife habitat. Under further discussion with the Corps, because the alternative proposed is in highly developed area with little wildlife value, it was agreed upon that a Fish and Wildlife Coordination Act letter would stand in place of a Planning Aid Report. This letter will still discuss potential for effects to fish and wildlife resources within the project area.

Within the Patapsco River, there are not any submerged aquatic vegetation (SAV) beds near the proposed project area. The Service recommends monitoring areas for runoff during construction to avoid potentially overloading the river with nutrients/sediment.

Wetland habitats are considered a trust resource, which are natural resources the Service has been entrusted with protecting for the benefit of American people. The Service's responsibility for protecting wetland habitats comes largely from the Fish and Wildlife Coordination Act; significantly concerned about wetland loss and the subsequent impacts on fish and wildlife populations. According to the February 23, 2022 data received from the National Wetlands Inventory Mapper, the main wetland type that occurs near any of the project areas are estuarine/marine deepwater wetlands. Because the project consists of construction on land, it is not expected to have negative effect on diadromous fish in the area. Major effects are not expected for wetlands, as proposed construction alternatives are only slated to place material on land. No construction is proposed to occur in the water, only on hardened shoreline. When possible, the construction should avoid placement via waterways to mitigate potential for displacement of benthic communities and fish and wildlife resources, and as previously suggested monitor any runoff during construction to avoid additional nutrient deposition to the Patapsco.

Information obtained from Atlantic Coast Joint Venture was through the American Black Duck Prioritization Tool on February 25, 2022 (Appendix). The Patapsco River portion of the project

area falls within Maintenance Watersheds. These areas currently contain enough food to support black duck population objectives. Work in these areas could include restoring or protecting addition habitat should current habitat be lost or degraded. Because the project alternatives being considered are only expected to alter developed areas, areas not suitable for black duck nesting, the project alternatives are not expected to have any effect on American black ducks expected to be in that area.

This letter also considers at-risk species - species whose population is in decline but are not yet determined to be threatened or endangered. This includes species that are proposed for listing, candidates for listing, and/or petitioned for listing under the Endangered Species Act. The Service may also consider species of greatest conservation need as identified by the states. A polygon of the project area was mapped within IPaC, which generated a list of migratory birds and Birds of Conservation Concern within the Patapsco River project area. Several at-risk species were identified within the IPaC list as well, including monarch butterfly (*Danaus plexippus*), American oystercatcher (*Haematopus pilliatus*), cerulean warbler (*Dendroica cerulea*), Eastern whip-poor-will (*Antrostomus vociferus*), ruddy turnstone (*Arenaria interpres morinella*) and wood thrush (*Hylocichla mustilina*). Common terns (*Sterna hirundo)* and royal tern (*Sterna Thalasseus maximus*) also could be seen within the project area. Royal terns are not known to nest in the project area, there is an annual nesting common tern colony on a barge off the coast of Masonville Cove, it is approximately one mile from the nearest construction area. Due to the location in the TSP, because it is highly developed and does not offer suitable foraging or nesting habitat and offers a good bit of distance between the construction areas and potential nesting sites, it is not expected that this project will have any negative effects on these species.

IPaC identified only one threatened/endangered species, the northern long-eared bat (*Myotis septentrionalis*). Although it was identified in the screening, the developed area is not suitable habitat for this species, therefore it has been determined that the project is not likely to adversely affect the species. The bald eagle was also identified by IPaC due to its protection under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The nearest bald eagle nest to the project area is at Masonville Cove, approximately one mile from the nearest construction activity, therefore the TSP is not expected to have any affect on the bald eagle population expected to occur within the project area.

Conclusion

There are several species that are identified as utilizing the project area that are at-risk, threatened/endangered, and/or state listed as threatened or endangered. The Wildlife and Heritage Services within Maryland Department of Natural Resources is responsible for the identification and protection of these species in Maryland. Best management practices should be implemented to avoid detrimental impacts to aquatic resources, i.e., monitoring any runoff that occurs due to construction. Coordination with National Marine Fisheries Service (NMFS) is recommended regarding potential impacts to Essential Fish Habitat and NMFS trust resources. Consultation pursuant to the Endangered Species Act of 1973 will also be required with the Service if the presence of any threatened and endangered species occurs within the project area

of impact. Due to the nature of this project, and because the alternative outlined consists of construction in highly developed areas with low fish and wildlife resources, the species identified to be within the project area are not likely to be negatively impacted by this project. This alternative should minimize any adverse effects to Service trust resources and optimize for environmentally compatible options if possible. If there are any questions, please contact Amy O'Donnell, of my staff, at amy_odonnell@fws.gov.

Sincerely,

Genevieve LaRouche
Field Supervisor

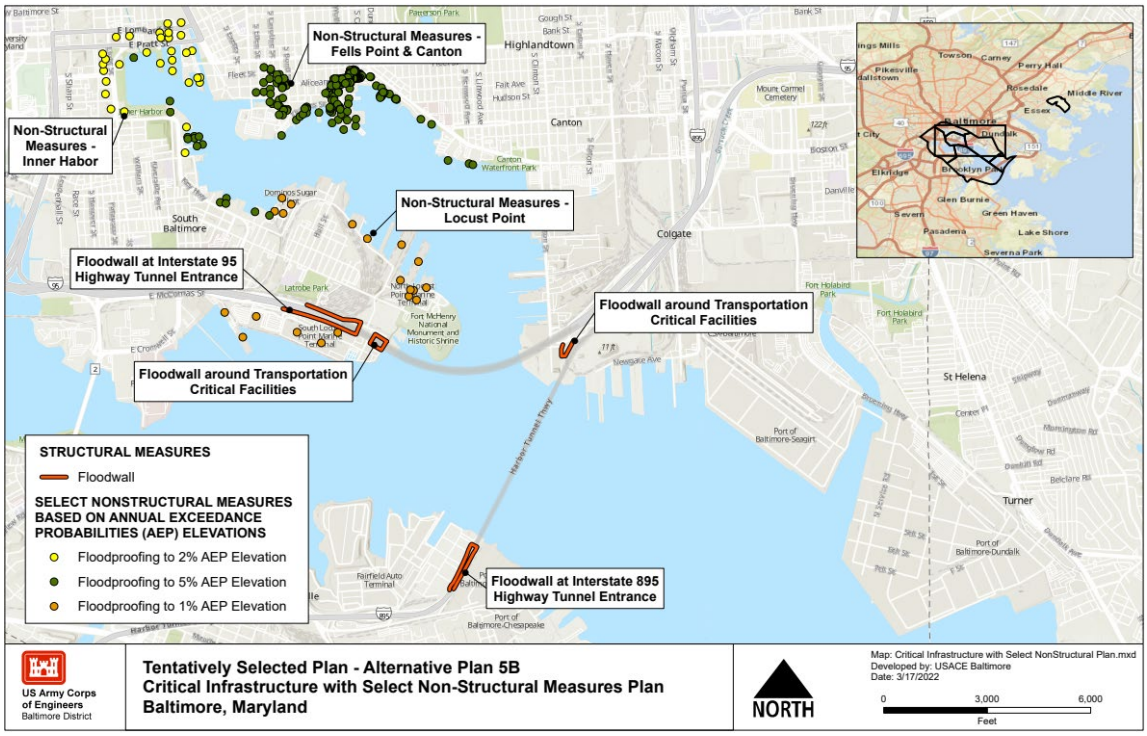
References

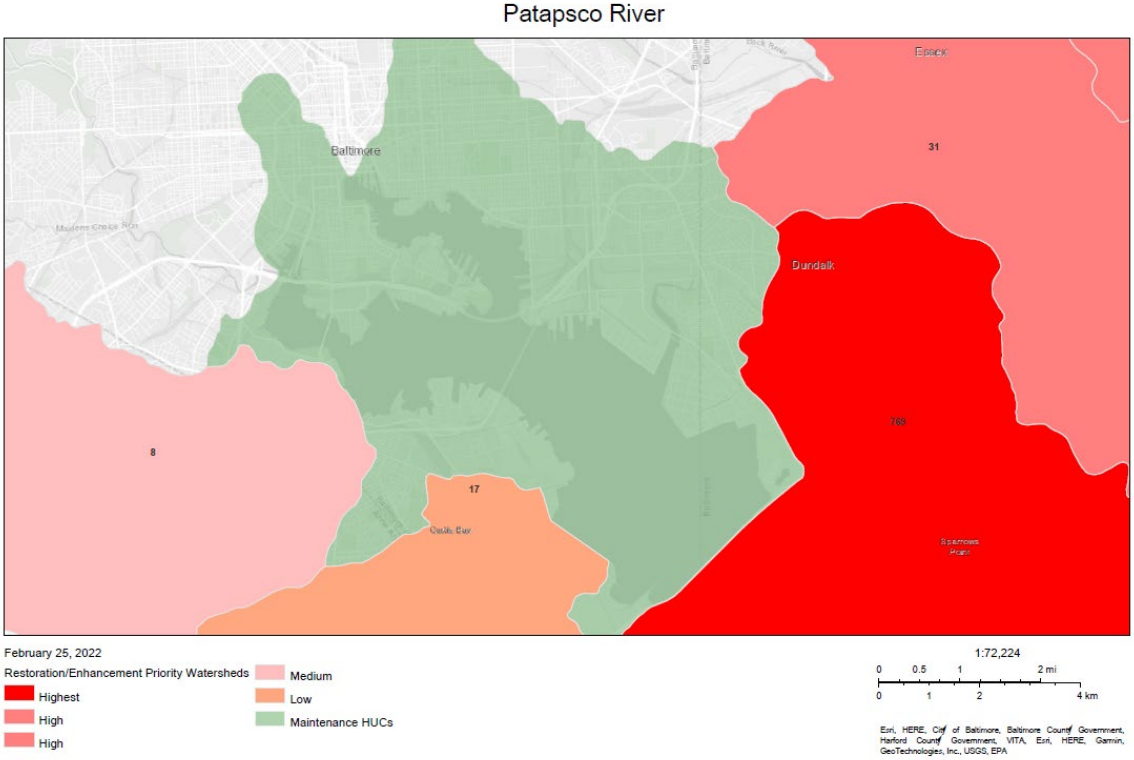
Atlantic Coast Joint Venture (ACJV) American Black Duck. 2020 https://acjv.org/american-black-duck/ Accessed February 2022.

U.S. Fish and Wildlife Information for Planning and Conservation (IPaC). 2022 https://ipac.ecosphere.fws.gov/ Accessed February 2022.

U.S. Fish and Wildlife Wetlands Mapper.2022. https://www.fws.gov/wetlands/data/Mapper.html Accessed February 2022.

Appendix


Non-Structural Measures - Fells Point & Canton
Non-Structural Measures - Inner Habor
Non-Structural Measures - Locust Point
Floodwall at Interstate 95 Highway Tunnel Entrance
Floodwall around Transportation Critical Facilities
Floodwall around Transportation Critical Facilities
Floodwall at Interstate 895 Highway Tunnel Entrance
STRUCTURAL MEASURES
Floodwall
SELECT NONSTRUCTURAL MEASURES BASED ON ANNUAL EXCEEDANCE PROBABILITIES (AEP) ELEVATIONS
Floodproofing to 2% AEP Elevation
Floodproofing to 5% AEP Elevation
Floodproofing to 1% AEP Elevation
US Army Corps of Engineers
Baltimore District
Tentatively Selected Plan - Alternative Plan 5B
Critical Infrastructure with Select Non-Structural Measures Plan
Baltimore, Maryland
NORTH
Map: Critical Infrastructure with Select NonStructural Plan.mxd
Developed by: USACE Baltimore
Date: 3/17/2022
0 3,000 6,000
Feet


Patapsco River
Baltimore
Essex
Dundalk
31
8
17
Curtis Bay
February 25, 2022
Restoration/Enhancement Priority Watersheds
Highest
High
High
Medium
Low
Maintenance HUCs
1:72,224
0 0.5 1 2 mi
0 1 2 4 km
Esri, HERE, City of Baltimore, Baltimore County Government, Harford County Government, VITA, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127
http://www.fws.gov/chesapeakebay/
http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html

In Reply Refer To: February 04, 2022
Project Code: 2022-0003498
Project Name: Baltimore Coastal Storm Risk Management Feasibility Study

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan
(http://www.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
(410) 573-4599

Project Summary

Project Code: 2022-0003498
Event Code: None
Project Name: Baltimore Coastal Storm Risk Management Feasibility Study
Project Type: Land Preservation
Project Description: The Baltimore Coastal Storm Risk Management Feasibility Study seeks to reduce coastal flood risk to vulnerable populations, properties, infrastructure, and environmental and cultural resources considering future climate and sea level rise scenarios to support resilient communities in Baltimore.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.24312990000007,-76.5707463544322,14z

Counties: Anne Arundel, Baltimore, and Baltimore counties, Maryland

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis*	Threatened

No critical habitat has been designated for this species.

This species only needs to be considered under the following conditions:

- Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key

Species profile: https://ecos.fws.gov/ecp/species/9045

Birds

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis*	Threatened

No critical habitat has been designated for this species.

Species profile: https://ecos.fws.gov/ecp/species/10477

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.

This species only needs to be considered under the following conditions:

- The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html).

Species profile: https://ecos.fws.gov/ecp/species/9743

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- PUBHx
- PUSAx
- PUSCx
- PUBFh
- PUBHh
- PUBH
- PUBFx

ESTUARINE AND MARINE WETLAND

- E2US2P
- E2USP
- E2USN
- E2EM1P6
- E2EM1Px
- E2EM1P

FRESHWATER EMERGENT WETLAND

- PEM1/SS1F
- PEM1Fx
- PEM1R
- PEM1/SS1Cx
- PEM1E
- PEM1D
- PEM1Cd
- PEM5A
- PEM1C
- PEM1F
- PEM1Eh

- PEM1Ch
- PEM1Cx
- PEM1Fh
- PEM1Ax

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1/EM5A
- PFO1C
- PFO1R
- PFO1S
- PSS1R
- PFO1A
- PFO1Fx
- PFO1/SS1Ch

RIVERINE

- R1UBV
- R5UBH
- R4SBC
- R2UBH
- R1USQ

ESTUARINE AND MARINE DEEPWATER

- E1UBL
- E1UBLh
- E1UBL6
- E1UBLx

LAKE

- L1UBK
- L2USCh

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Project information

NAME

Baltimore Coastal Storm Risk Management Feasibility Study

LOCATION

Anne Arundel, Baltimore, and Baltimore counties, Maryland

DESCRIPTION

Some(The Baltimore Coastal Storm Risk Management Feasibility Study seeks to reduce coastal flood risk to vulnerable populations, properties, infrastructure, and environmental and cultural resources considering future climate and sea level rise scenarios to support resilient communities in Baltimore.)

Local office

Chesapeake Bay Ecological Services Field Office

(410) 573-4599
(410) 266-9127

177 Admiral Cochrane Drive
Annapolis, MD 21401-7307

http://www.fws.gov/chesapeakebay/
http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Northern Long-eared Bat Myotis septentrionalis Wherever found	Threatened

This species only needs to be considered if the following condition applies:

- Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9045

Birds

NAME	STATUS
Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis Wherever found	Threatened

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/10477

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found	Candidate

This species only needs to be considered if the following condition applies:

- The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html).

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES

THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

American Oystercatcher Haematopus palliatus — Breeds Apr 15 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8935

Bald Eagle Haliaeetus leucocephalus — Breeds Oct 15 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

Black Scoter Melanitta nigra — Breeds elsewhere
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Black Skimmer Rynchops niger — Breeds May 20 to Sep 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black-billed Cuckoo Coccyzus erythropthalmus — Breeds May 15 to Oct 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9399

Blue-winged Warbler Vermivora pinus — Breeds May 1 to Jun 30
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Bobolink Dolichonyx oryzivorus — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Brown Pelican Pelecanus occidentalis — Breeds Jan 15 to Sep 30
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/6034

Canada Warbler Cardellina canadensis — Breeds May 20 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cerulean Warbler Dendroica cerulea — Breeds Apr 29 to Jul 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/2974

Common Loon gavia immer — Breeds Apr 15 to Oct 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/4464

Double-crested Cormorant phalacrocorax auritus — Breeds Apr 20 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/3478

Eastern Whip-poor-will Antrostomus vociferus — Breeds May 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle Aquila chrysaetos — Breeds elsewhere
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Gull-billed Tern Gelochelidon nilotica — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9501

Hudsonian Godwit Limosa haemastica — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Kentucky Warbler Oporornis formosus — Breeds Apr 20 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Long-tailed Duck Clangula hyemalis — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/7238

Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prothonotary Warbler Protonotaria citrea — Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Purple Sandpiper Calidris maritima — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-breasted Merganser Mergus serrator — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-necked Phalarope Phalaropus lobatus — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Red-throated Loon Gavia stellata — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Ring-billed Gull Larus delawarensis — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Royal Tern Thalasseus maximus — Breeds Apr 15 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Ruddy Turnstone Arenaria interpres morinella — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Rusty Blackbird Euphagus carolinus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Surf Scoter Melanitta perspicillata — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

White-winged Scoter Melanitta fusca — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Willet Tringa semipalmata — Breeds Apr 20 to Aug 5

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wood Thrush Hylocichla mustelina — Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

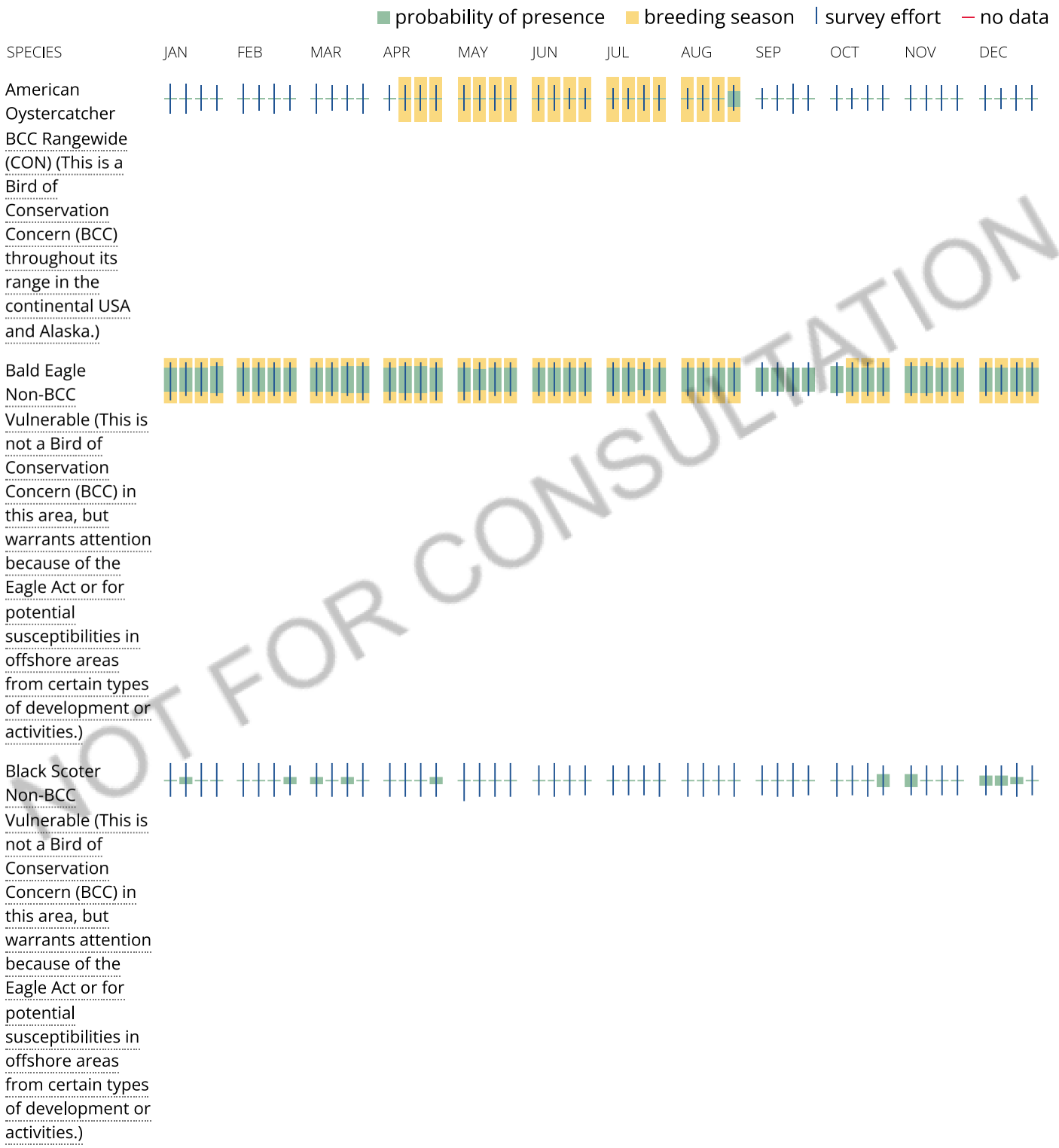
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

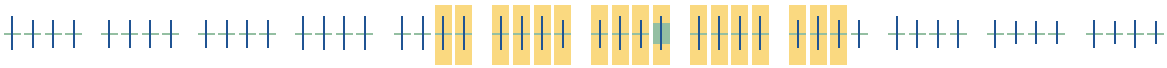
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

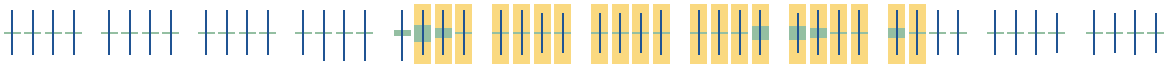
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Black Skimmer BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

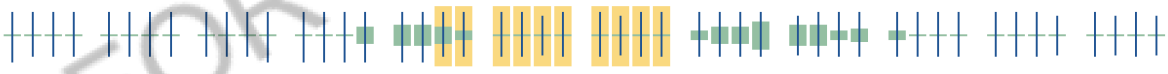


Black-billed Cuckoo BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

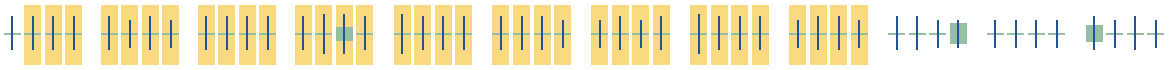


Blue-winged Warbler BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

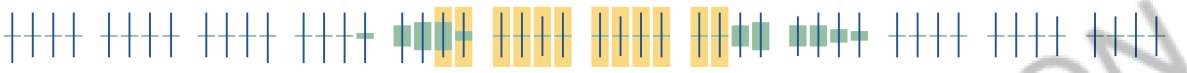
Bobolink BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Brown Pelican Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

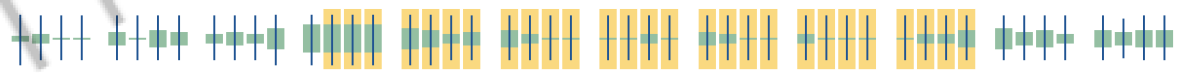


Canada Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Cerulean Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

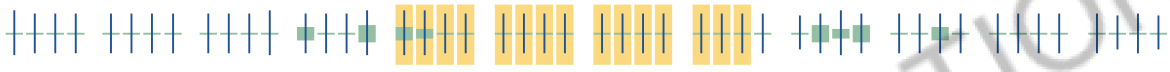
Common Loon Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Double-crested Cormorant
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Eastern Whip-poor-will
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

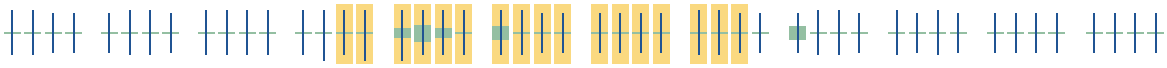


Golden Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

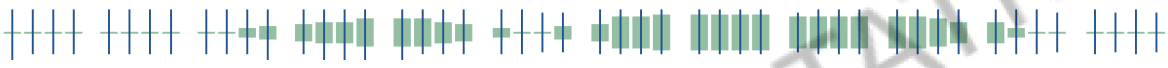
Gull-billed Tern
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Hudsonian Godwit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

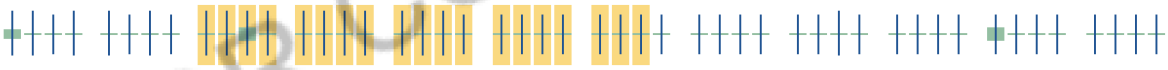
Kentucky Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



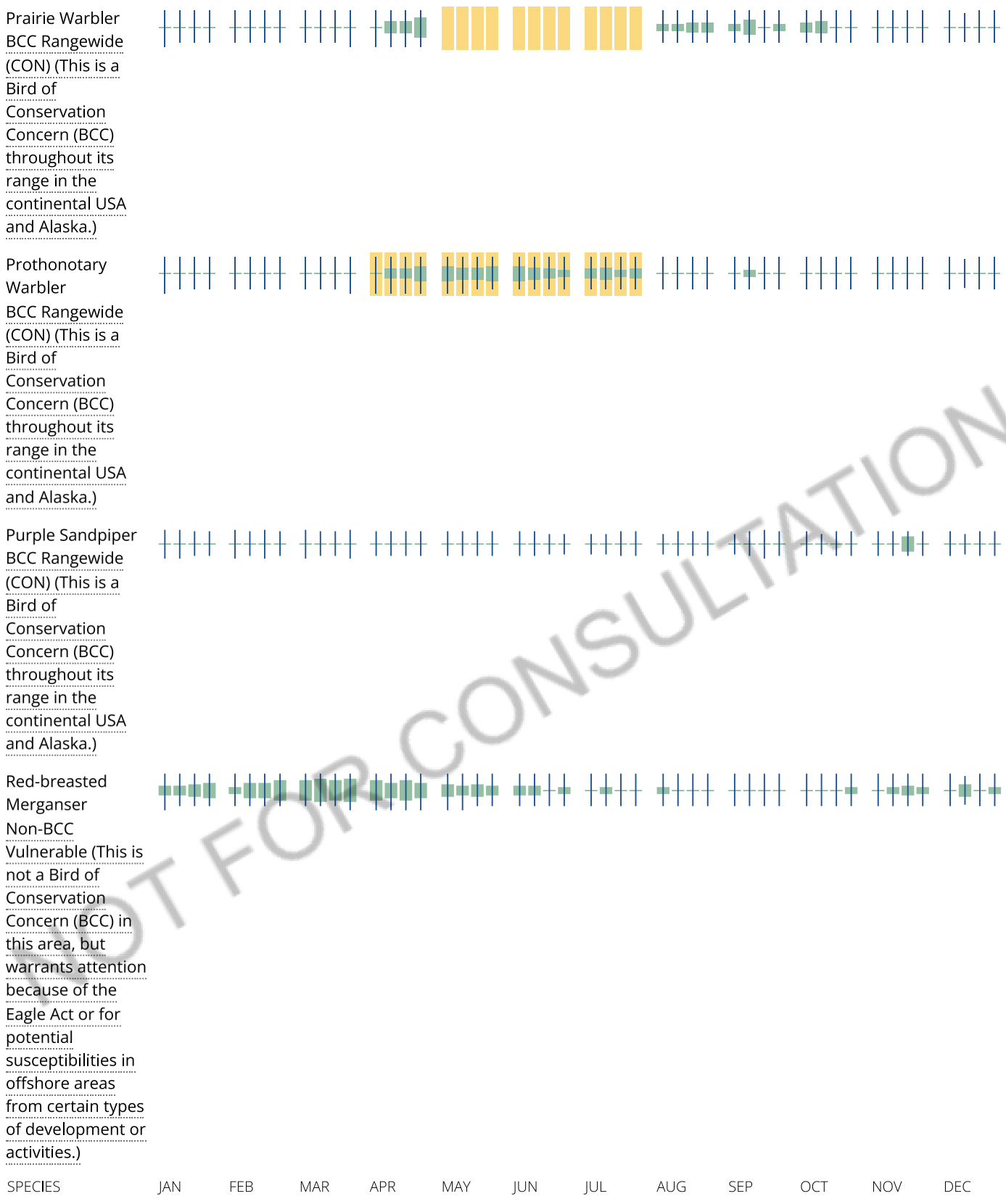
Lesser Yellowlegs BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Long-eared Owl BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Long-tailed Duck Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

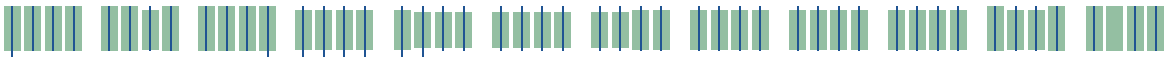


Red-headed Woodpecker BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

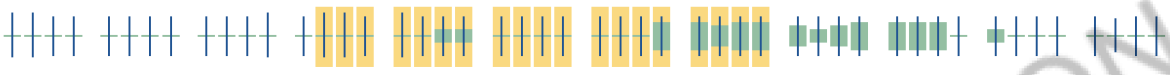
Red-necked Phalarope Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Red-throated Loon Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Ring-billed Gull Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Royal Tern Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Ruddy Turnstone BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

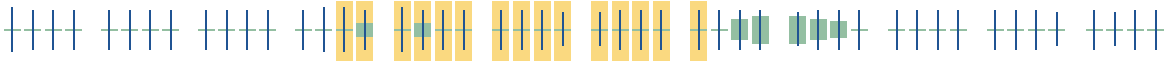
Rusty Blackbird BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Short-billed Dowitcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

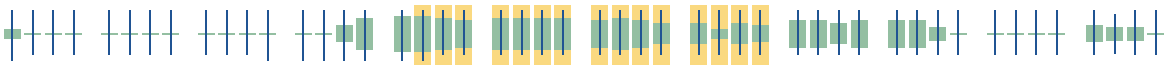
Surf Scoter
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

White-winged Scoter
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Willet
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Wood Thrush BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds

guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid

or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

ESTUARINE AND MARINE DEEPWATER

- E1UBL
- E1UBL6
- E1UBLh
- E1UBLx

ESTUARINE AND MARINE WETLAND

- E2EM1P
- E2EM1P6

- E2USP
- E2US2P
- E2USN
- E2EM1Px

FRESHWATER EMERGENT WETLAND

- PEM1/SS1F
- PEM1Fx
- PEM1Cd
- PEM1C
- PEM1Fh
- PEM1F
- PEM1Ch
- PEM1/SS1Cx
- PEM1Cx
- PEM1E
- PEM1Eh
- PEM1Ax
- PEM1D
- PEM5A
- PEM1R

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PFO1C
- PFO1/SS1Ch
- PFO1S
- PSS1R
- PFO1/EM5A
- PFO1Fx
- PFO1R

FRESHWATER POND

- PUBHx
- PUBH
- PUBHh
- PUBFx
- PUBFh
- PUSCx
- PUSAx

LAKE

- L2USCh
- L1UBK

RIVERINE

- R4SBC
- R1UBV

R5UBH
R2UBH
R1USQ

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.